- a) an auctioneer's system and at least two user systems, the auctioneer's system communicatively coupled to user systems;
 - b) said user systems including:
- b1) means for receiving messages from the auctioneer's system and for displaying those messages;
- b2) means for receiving bid related information from users, said information including bids for television licenses or associated derivative rights; and
 - b3) means for transmitting bid information to the auctioneer's system; and
 - c) said auctioneer's system including:
- c1) means for generating and transmitting messages to user systems, said messages including a non-final message indicating that an auction will continue and a final message indicating that an auction has terminated.
 - c2) means for receiving bid information from user systems; and
- c3) decision means responsive to the bid information received from the user systems for determining whether an auction should continue or terminate, said decision means including:
- c31) means to initiate the generation of a non-final message to at least one user system in response to a determination to continue an auction; and
- c32) means to initiate the generation of a final message to at least one user system in response to a determination to terminate an auction.

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Parameter P_i and an associated license subset identification S_i, where the license subset identification S_i identifies a set of licenses and where the value parameter P_i specifies a payment proposed by the user in return for the licenses of subset S_i.

A system as recited in claim 54 wherein the decision means includes a selecting means to select an n-tuple of bids (S_i, P_i) , at most one from each user system, which selection is effective to optimize the sum of the different value parameters P_i of the selected bids subject to the constraint that the associated subsets S_i of all of the selected bids are compatible.

24 56. A system as recited in claim 54 wherein the decision means selects bids to optimize the sum of the different value parameters P_i of the selected bids subject to the constraint that the associated subsets S_i of every pair of selected bids are disjoint.

A system as recited in claim 3 wherein the auction is conducted in multiple rounds.

58. A system as recited in claim 56 wherein the auction is conducted in multiple rounds.

A system as recited in claim 58 wherein the decision means compares the sum of the parameters P_i from the selected bids to a function of the sum of the parameters P_i of an earlier round of selected bids.

A method for conducting a computer implemented auction of television licenses or associated derivative rights to a plurality of users comprising:

- a) providing an auctioneer's system;
- b) receiving bid related information from users, said information including bids for television licenses or associated derivative rights, and transmitting bid information to the auctioneer's system;
- c) determining at the auctioneer's system, in response to the bid information received from users, whether the auction should continue or terminate;

- d) transmitting a message indicating that the auction will continue to at least one user, in response to a determination to continue the auction; and
- e) transmitting a message indicating that the auction will terminate to at least one user, in response to a determination to terminate the auction.
- A method as recited in claim 60 wherein the bid information includes a value parameter P_i and an associated license subset identification S_i, where the license subset identification S_i identifies a set of licenses and where the value parameter P_i specifies a payment proposed by the user in return for the licenses of subset S_i.
- A method as recited in claim 61 wherein the determining includes selecting an n-tuple of bids (S_i, P_i) , at most one from each user system, which selection is effective to optimize the sum of the different value parameters P_i of the selected bids subject to the constraint that the associated subsets S_i of all of the selected bids are compatible.
- A method as recited in claim of wherein the determining selects bids to optimize the sum of the different value parameters P_i of the selected bids subject to the constraint that the associated subsets S_i of every pair of selected bids are disjoint.
- A method as recited in claim 60 wherein the auction is conducted in multiple rounds.
- A method as recited in claim-61 wherein the auction is conducted in multiple rounds.

Amethod as recited in claim 63 wherein the determining compares the sum of the parameters P_i from the selected bids to a function of the sum of the parameters P_i of an earlier round of selected bids.

A system for conducting a computer implemented auction of television licenses or associated derivative rights, said system including a plurality of user systems operated by bidders and an auctioneer's system, the auctioneer's system being communicatively coupled to a plurality of user systems, comprising:

- a) means for receiving bid information for the television licenses or associated derivative rights from bidders at a plurality of user systems,
- b) means for transmitting signals based on the bid information from user systems to the auctioneer's system, and
- c) means for determining, based on the signals, the television licenses or associated derivative rights to be assigned to the bidders.

A system as recited in claim 67 wherein the bid information includes a value parameter P_i and an associated license subset identification S_i, where the license subset identification S_i identifies a set of licenses and where the value parameter P_i specifies a payment proposed by the user in return for the licenses of subset S_i.

37 69A system as recited in claim 68-wherein the decision means includes a selecting means to select an n-tuple of bids (S_i, P_i) , at most one from each user system, which selection is effective to optimize the sum of the different value parameters P_i of the selected bids subject to the constraint that the associated subsets S_i of all of the selected bids are compatible

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70. A system as recited in claim-68 wherein the decision means selects bids to optimize the sum of the different value parameters P_i of the selected bids subject to the constraint that the associated subsets S_i of every pair of selected bids are disjoint.

A system as recited in claim 67 wherein the auction is conducted in multiple rounds.

72: A system as recited in claim 70 wherein the auction is conducted in multiple rounds.

A system as recited in claim $\frac{470}{73}$ wherein the decision means compares the sum of the parameters P_i from the selected bids to a function of the sum of the parameters P_i of an earlier round of selected bids.

A method for conducting a computer implemented auction of television licenses or associated derivative rights in a system including a plurality of user systems operated by bidders and an auctioneer's system, the auctioneer's system being communicatively coupled to a plurality of user systems, the method comprising:

- a) receiving bid information for the television licenses of associated derivative rights from bidders at a plurality of user systems,
- b) transmitting signals based on the bid information from user systems to the auctioneer's system, and
- c) determining, based on the signals, the television licenses or associated derivative rights to be assigned to the bidders.

75. A method as recited in claim 74 wherein the bid information includes a value parameter P_i and an associated license subset identification S_i, where the license subset

identification S_i identifies a set of licenses and where the value parameter P_i specifies a payment proposed by the user in return for the licenses of subset S_i .

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A method as recited in claim 75 wherein the determining includes selecting an n-tuple of bids (S_i, P_i) , at most one from each user system, which selection is effective to optimize the sum of the different value parameters P_i of the selected bids subject to the constraint that the associated subsets S_i of all of the selected bids are compatible.

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47. A method as recited in claim-75 wherein the determining selects bids to optimize the sum of the different value parameters P of the selected bids subject to the constraint that the associated subsets S_i of every pair of selected bids are disjoint.

78. A method as recited in claim 74 wherein the auction is conducted in multiple rounds.

79. A method as recited in claim 77 wherein the auction is conducted in multiple rounds.

A method as recited in claim 79 wherein the determining compares the sum of the parameters P_i from the selected bids to a function of the sum of the parameters P_i of an earlier round of selected bids.

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81: A computer system for implementing an auction of television licenses or associated derivative rights, said auction including a plurality of bidders, comprising:

a) means for inputting, into the computer, bids for television licenses or associated derivative rights;

- b) means for determining, based on the bids, an allocation of television licenses or associated derivative rights to bidders; and
- c) means for outputting, from the computer, the allocation of television licenses or associated derivative rights to bidders.
- \$2. A system as recited in claim \$1 wherein the auction is conducted in multiple rounds.
- A system as recited in claim \$1-wherein the bids include a value parameter P_i and an associated license subset identification S_i , where the license subset identification S_i identifies a set of licenses and where the value parameter P_i specifies a payment proposed by the user in return for the licenses of subset S_i .
- A method for using a computer to implement an auction of television licenses or associated derivative rights, said auction including a plurality of bidders, comprising:
- a) inputting, into the computer, bids for television licenses or associated derivative rights;
- b) determining, based on the bids, an allocation of television licenses or associated derivative rights to bidders; and
- c) outputting, from the computer, the allocation of television licenses or associated derivative rights to bidders.
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 85: A method as recited in claim 84 wherein the auction is conducted in multiple rounds.
- 54 86A method as recited in claim 84-wherein the bids include a value parameter P_i and an associated license subset identification S_i , where the license subset identification S_i identifies